WE CLAIM:

1. A method for treating a patient having a condition in which regulating energy metabolism during a systemic inflammatory response is desired, comprising administering a composition having a physiologically effective amount of at least one OB-R agonist ligand.

2. The method of claim 1 wherein the OB-R agonist ligand is recombinant human OB protein.

3. The method of claim 2 wherein the amount of recombinant human OB protein administered is from about 1 microgram per kilogram body weight to about 50 micrograms per kilogram body weight.

4. The method of claim 1 wherein the OB-R agonist ligand is a peptide conformational analog of human OB protein comprising conservative substitutions of amino acid residues.

5. The method of claim 1 wherein the OB-R agonist ligand is an OB-related peptide.

6. The method of claim 1 wherein the condition is sepsis.

7. The method of claim 1 wherein the condition is systemic inflammatory response syndrome.

8. A composition for treating a patient having a condition in which regulating energy metabolism during a systemic inflammatory response is desired, comprising a physiologically effective amount of at least one OB-R agonist ligand.

9. The composition of claim 8 wherein the OB-R agonist ligand is recombinant human OB protein.

10. The composition of claim 9 wherein the amount of recombinant human OB protein per dose is from about 1 microgram per kilogram body weight to about 50 micrograms per kilogram body weight.

11. The composition of claim 8 wherein the OB-R agonist ligand is a peptide conformational analog of human OB protein comprising conservative substitutions of amino acid residues.

12. The composition of claim 8 wherein the OB-R agonist ligand is an OB-related peptide.

13. The composition of claim 8 wherein the condition is sepsis.

14. The composition of claim 8 wherein the condition is systemic inflammatory response syndrome.

15. A composition for the amelioration of the toxicity of therapeutic cytokines comprising a physiologically effective amount of an OB-R agonist ligand.

16. The composition of claim 15 wherein the OB-R agonist ligand is recombinant human OB protein.

17. The composition of claim 15 wherein the amount of recombinant human OB protein per dose is 1 microgram per kilogram body weight to about 50 micrograms per kilogram body weight.

18. A method for the treatment of a patient having obesity comprising the steps of:

administering at least one OB-R expression inducer; and

administering a physiologically effective amount of an OB-R agonist ligand.

19. The method of claim 18 wherein the OB-R expression inducer is a compound chosen from the group consisting of LPS, IL-1α, IL-1β, TNF-α and IL-6.

20. The method of claim 18 wherein the OB-R expression inducer and the OB-R agonist ligand are administered at a different times.

21. The method of claim 18 wherein the OB-R expression inducer is administered in an amount from about 0.003 to about 20 micrograms per kilogram body weight.

22. The method of claim 18 wherein the OB-R agonist ligand is administered in an amount from about 1 microgram per kilogram body weight to about 50 micrograms per kilogram body weight.

23. The method of claim 18 wherein the OB-R agonist ligand is recombinant human OB protein.

24. The method of claim 23 wherein the recombinant human OB protein is administered in an amount from about 1 micrograms per kilogram body weight to about 50 micrograms per kilogram body weight.

25. The method of claim 18 wherein the OB-R expression inducer is IL-6.

26. The method of claim 25 wherein IL-6 is administered in an amount from about 0.5 to about 20 micrograms per kilogram body weight.

27. A method for the treatment of a patient having a condition characterized by OB resistance, comprising the steps of:

administering IL-6 in an amount from about 0.5 to about 20 micrograms per kilogram body weight; and

administering recombinant human OB protein in an amount from about 1 microgram per kilogram body weight to about 50 micrograms per kilogram body weight.

28. A composition suitable for the treatment of obesity comprising:

at least one therapeutic cytokine capable of increasing the expression of the OB receptor;

a physiologically effective amount of an OB-R agonist ligand; and a pharmaceutically acceptable excipient.

29. The composition of claim 28 wherein the therapeutic cytokine capable of increasing the expression of the OB receptor and the OB-R agonist ligand are packaged separately.

30. The composition of claim 28 wherein the therapeutic cytokine is about 0.5 to about 20 micrograms per kilogram body weight IL-6.

31. The composition of claim 29 wherein the OB-R agonist ligand is administered in a dose of about 1 micrograms per kilogram body weight to about 50 micrograms per kilogram body weight recombinant human OB protein.

32. An assay kit for a disease marker in a sample for a systemic inflammatory response in a patient comprising:

an antibody capable of binding to OB protein; and

a detection means for determining the amount of the antibody bound to OB protein.

33. A method for assaying a disease marker for an inflammatory response in a patient comprising:

mixing a portion of the sample with an antibody capable of binding to OB protein; and

detecting the amount of antibody bound to OB protein.

34. A composition suitable for the treatment of anorexia, cachexia or other wasting condition comprising a physiologically effective amount of antibody capable of binding OB protein.

35. The method for the treatment of anorexia, cachexia or other wasting condition comprising administering a physiologically effective amount of antibody capable of binding OB protein in an amount from about 0.02 to about 15 milligrams per kilogram body weight per day.